

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No.: 10/621,180  
Applicant: Michael Johnston Mann  
Filing Date: July 16, 2003  
Title: ELECTROSTATIC DISSIPATION  
TC/A.U.: Unknown  
Examiner: Unknown  
Docket No.: 32008-2

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Patent & Trademark Office, P.O. Box 1450,  
Alexandria, VA 22813-1450 on 10-23-03  
October 23, 2003  
Date

Mail Stop Non-Fee Amendment  
Commissioner for Patents  
Post Office Box 1450  
Alexandria, VA 22313-1450

AMENDMENT

Dear Sir:

We filed an Amendment on October 6, 2003. Inadvertently the copies of the three Disclosure Statements (No. 512,690 – No. 514,236 – No. 518,587) were left out of the Amendment. Enclosed at this time are copies of same to go with the Amendment of October 6, 2003.

Respectfully submitted,

Charles L. Schwab  
Attorney for Applicant  
Registration No. 17,497  
NEXSEN PRUET JACOBS & POLLARD, LLC  
Post Office Box 10107  
Greenville, SC 29603  
Telephone: (864) 370-2211  
Facsimile: (864) 282-1177

23 October 2003



DISCLOSURE DOCUMENT NO. AND DATE

U.S. PATENT OFFICE

## 1) TITLE OF INVENTION

*Electrostatic Dissipative Gasoline Fueling Warning Signs*

DISCLOSURE DOCUMENT NO.



512690

RETAINED FOR 2 YEARS

THIS IS NOT A PATENT APPLICATION

PTO-1652 (8/99)

## 2) INVENTOR(S)

NAME

ADDRESS

Michael J. Mann

11961 SW 144 Street Miami, FL 33186

## 3) DATE IDEA FIRST CONCEIVED: February 13, 2002

## 4) DEVELOPMENT OF INVENTION:

a. Date of First Drawing: April 23, 2002 Drawing No.: N/Ab. Date of First Written Description (other than this disclosure):  
April 23, 2002c. Has it been Tested? Yes Date: May 10, 2002d. Is there a Model? Yes Date: May 10, 2002e. Has this invention been used? No Date: N/Af. Where or how was it used? N/A

5) WITNESSES: sign full name - State whether disclosure was made by means of verbal discussion, drawings, model or written descriptions

Name And Address

Date Disclosed

How Disclosed

a.

Eva FernandezMay 10, 2002Verbal and Drawings

PATLON INDUSTRIES, INC.

STATIC CONTROL SYSTEMS  
11961 SW 144TH ST  
MIAMI, FL 33186SUNTRUST BANK  
777, BRICKELL AVENUE, 4TH FLOOR  
MIAMI, FLORIDA

63-60/660

CHECK NO.

75782

\*\*\*TEN DOLLARS AND NO CENTS\*\*\*

DATE

AMOUNT

05/29/02

\*\*\*\*\*10.00

U.S. Patent Office

Washington DC 20231

PATLON INDUSTRIES, INC

AUTHORIZED SIGNATURE

0075782 0066000604 0189001210279

Security features. Details on back.

DISCLOSURE DOCUMENT NO. AND DATE <input type="checkbox"/>	U.S. PATENT OFFICE
--	--------------------

**1) TITLE OF INVENTION**  
*Electrostatic Dissipative Gasoline Fueling Warning Signs*

**2) INVENTOR(S)**

NAME	ADDRESS
Michael J. Mann	11961 SW 144 Street Miami, FL 33186

**3) DATE IDEA FIRST CONCEIVED:** February 13, 2002

**4) DEVELOPMENT OF INVENTION:**

a. Date of First Drawing: April 23, 2002 Drawing No.: N/A

b. Date of First Written Description (other than this disclosure):  
April 23, 2002

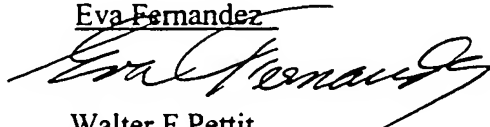
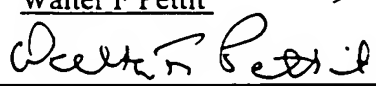
c. Has it been Tested? Yes Date: May 10, 2002

d. Is there a Model? Yes Date: May 10, 2002

e. Has this invention been used? No Date: N/A

f. Where or how was it used? N/A

**5) WITNESSES:** sign full name - State whether disclosure was made by means of verbal discussion, drawings, model or written descriptions

	Name And Address	Date Disclosed	How Disclosed
a.	<u>Eva Fernandez</u> 	<u>May 10, 2002</u>	<u>Verbal and Drawings</u>
b.	<u>Walter F Pettit</u> 	<u>May 10, 2002</u>	<u>Verbal and Drawings</u>



Sketch #1

6. DRAWINGS:

# CAUTION ! Touch Here First



## To Discharge Your Static

Touch this sign first each time you approach the nozzle area

### In case of Fire:

**Do Not Remove Nozzle From Vehicle**

**Get Away – Get Help to Fight Fire**

**Tell Station Attendant to Shut Off Fuel Pump**

### Refueling Safety

**Always:**  
Turn off the vehicle  
Refuel slowly for 1<sup>st</sup>  
1/2 tank

**Never:**  
Never Allow Children to  
refuel.

Never have children in the  
vehicle during refueling

Never Smoke

Never auto-latch the nozzle

Never Get back in the  
vehicle during refueling

**Discharge your static:**  
Every time you exit  
the vehicle

Every time you approach  
the nozzle area

If a fire occurs:

Never pull the nozzle  
out of the vehicle

### Filling Containers

Use Only approved  
Containers

Always fill containers  
sitting on the ground –  
Never in a vehicle or  
bed of truck

# Static May Cause Fires

Sketch #2

## 7) ABSTRACT (DESCRIPTION OF THE INVENTION)

Since 1991, many gasoline refueling fires due to electrostatic discharges have been reported some with injuries and deaths. The present invention gives the person (s) refueling very visible warnings to the danger and a method and device for safely discharging the static on themselves without an incendiary arc or discharge by using static dissipative warning sign materials properly grounded.

The signage may include any verbage deemed necessary to alert the refueler. However, the following are absolutely necessary to keep discharges and injuries to a minimum.

In almost every case of a refueling fire, if the person had left the nozzle in the vehicle there would have been little or no injury or certainly not death. In addition to eliminating the static from causing a refueling fire, the most important warning is "leave the nozzle in the vehicle." This signage should be on the dispensing pump area and more importantly on the nozzle. See sketch #1.

The gas dispensing pumps must also have very visible warnings made of dissipative materials to serve as a warning and as a place where the person may discharge their static without a spark and away from the fume area of the nozzle. When a person discharges their static to a metal surface, a spark occurs. If this spark is in ignitable fumes, there may be an ignition. If the discharge is to a more resistive material (static dissipative) and away from the vehicle fill port area, then the static is discharged more slowly and eliminates the spark as well as the possibility of ignition. Sketch #2 is a form of the sign planned to be attached to the dispensing pump and will have a resistance to ground of approximately 1 - 100 Meg Ohms when properly connected by a conductor to ground or affixed to the dispenser pump in such a way to touch and have connection to the grounded metal body of the pump.

DD\$



Date: May 31, 2002

Commissioner of Patents  
U.S. Patent Office  
Washington, D.C. 20231  
Subject: Disclosure Document Program

DISCLOSURE DOCUMENT NO.



514236

RETAINED FOR 2 YEARS  
THIS IS NOT A PATENT APPLICATION  
PTO-1652 (8/99)

Dear Sir:

Michael J. Mann, the undersigned respectfully requests that the enclosed description of my original and alternative ideas on *Electrostatic Dissipative Gasoline Fueling Warning Signs* be accepted under the Disclosure Document Program and that the documents be preserved for a period of two years.

My check in the amount of \$10 is enclosed together with a stamped self-addressed envelope.

Sincerely,

Michael J. Mann

**PATLON INDUSTRIES, INC.**  
STATIC CONTROL SYSTEMS  
11961 SW 144TH ST  
MIAMI, FL 33186

SUNTRUST BANK  
777 BRICKELL AVENUE, 4TH FLOOR  
MIAMI, FLORIDA

63-60/660

CHECK NO. 76072

76072

\*\*\*\*\*TEN DOLLARS AND 00/100 CENTS \*\*\*\*\*

DATE

6/25/02

AMOUNT

\$10.00

PAY  
TO THE  
ORDER  
OF  
U.S. PATENT OFFICE  
WASHINGTON DC 20231

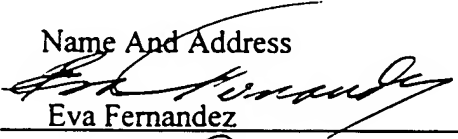
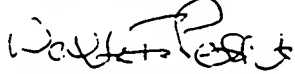
PATLON INDUSTRIES, INC.

AUTHORIZED SIGNATURE

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Security features. Details on back.



<b>DISCLOSURE DOCUMENT NO. AND DATE</b> <input type="checkbox"/>	<b>U.S. PATENT OFFICE</b>	
<b>1) TITLE OF INVENTION</b> <p style="text-align: center;"><i><b>Electrostatic Dissipative Gasoline Fueling Warning Signs</b></i></p>		
<b>2) INVENTOR(S)</b>		
NAME	ADDRESS	
Michael J. Mann	11961 SW 144 Street Miami, FL 33186	
<b>3) DATE IDEA FIRST CONCEIVED: February 15, 2002</b>		
<b>4) DEVELOPMENT OF INVENTION:</b>		
a. Date of First Drawing: <u>April 26, 2002</u>	Drawing No.: <u>N/A</u>	
b. Date of First Written Description (other than this disclosure): <u>April 26, 2002</u>		
c. Has it been Tested? <u>Yes</u>	Date: <u>May 14, 2002</u>	
d. Is there a Model? <u>Yes</u>	Date: <u>May 14, 2002</u>	
e. Has this invention been used? <u>No</u>	Date: <u>N/A</u>	
f. Where or how was it used? <u>N/A -</u>		
<b>5) WITNESSES: sign full name - State whether disclosure was made by means of verbal discussion, drawings, model or written descriptions</b>		
Name And Address	Date Disclosed	How Disclosed
a.  <u>Eva Fernandez</u>	<u>May 14, 2002</u>	<u>Verbal and Drawings</u>
b.  <u>Walter F. Pettit</u>	<u>May 14, 2002</u>	<u>Verbal and Drawings</u>



6. DRAWINGS:



Sketch #1

6. DRAWINGS:

# CAUTION ! Touch Here First



## To Discharge Your Static

Touch this sign first each time you approach the nozzle area

### In case of Fire:

Do Not Remove Nozzle From Vehicle

Get Away – Get Help to Fight Fire

Tell Station Attendant to Shut Off Fuel Pump

### Refueling Safety

Always:

Turn off the vehicle

Refuel slowly for 1<sup>st</sup>  
1/2 tank

Never:

Never Allow Children to  
refuel.

Never have children in the  
vehicle during refueling

Never Smoke

Never auto latch the nozzle

Never Get back in the  
vehicle during refueling

Discharge your static:

Every time you exit  
the vehicle

Every time you approach  
the nozzle area

If a fire occurs:

Never pull the nozzle  
out of the vehicle

### Filling Containers

Use Only approved  
Containers

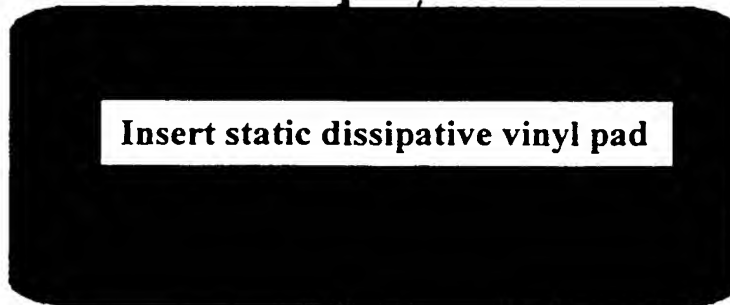
Always fill containers  
sitting on the ground—  
Never in a vehicle or  
bed of truck

# Static May Cause Fires

Sketch #2

6. DRAWINGS:

# CAUTION ! Touch Here First



## To Discharge Your Static

Touch this sign first each time you approach the nozzle area

### In case of Fire:

Do Not Remove Nozzle From Vehicle  
Get Away – Get Help to Fight Fire  
Tell Station Attendant to Shut Off Fuel Pump

#### Refueling Safety

##### Always:

Turn off the vehicle

Refuel slowly for 1<sup>st</sup>

1/2 tank

##### Never:

Never Allow Children to refuel.

Never have children in the vehicle during refueling

Never Smoke

Never auto-latch the nozzle

Never Get back in the vehicle during refueling

##### Discharge your static:

Every time you exit the vehicle

Every time you approach the nozzle area

##### If a fire occurs:

Never pull the nozzle out of the vehicle

##### Filling Containers

Use Only approved Containers

Always fill containers sitting on the ground –

Never in a vehicle or bed of truck

## Static May Cause Fires

Sketch #3

## 7) ABSTRACT (DESCRIPTION OF THE INVENTION)

Since 1991, many gasoline refueling fires due to electrostatic discharges have been reported some with injuries and deaths. The present invention gives the person (s) refueling very visible warnings to the danger and a method and device for safely discharging the static on themselves without an incendiary arc or discharge by using static dissipative warning sign materials properly grounded.

The signage may include any verbage deemed necessary to alert the refueler. However, the following are absolutely necessary to keep discharges and injuries to a minimum.

In almost every case of a refueling fire, if the person had left the nozzle in the vehicle there would have been little or no injury or certainly not death. In addition to eliminating the static from causing a refueling fire, the most important warning is "leave the nozzle in the vehicle." This signage should be on the dispensing pump area and more importantly on the nozzle. See sketch #1.

The gas dispensing pumps must also have very visible warnings made of dissipative materials to serve as a warning and as a place where the person may discharge their static without a spark and away from the fume area of the nozzle. When a person discharges their static to a metal surface, a spark occurs. If this spark is in ignitable fumes, there may be an ignition. If the discharge is to a more resistive material (static dissipative) and away from the vehicle fill port area, then the static is discharged more slowly and eliminates the spark as well as the possibility of ignition. Sketch #2 is a form of the sign planned to be attached to the dispensing pump and will have a resistance to ground of approximately 1 - 100 Meg Ohms when properly connected by a conductor to ground or affixed to the dispenser pump in such a way to touch and have connection to the grounded metal body of the pump, such as conductive adhesive, or conductive tape. Sketch #3 is an alternative design and will have a resistance to ground of approximately 10 to 1,000 meg ohms when properly connected by a conductor to ground or affixed to the dispenser pump in such a way to touch and have connection to the grounded metal body of the pump. This can be achieved by affixing the label, and the inset static dissipative vinyl, in such a way that the static dissipative vinyl touches the metal body of the dispensing pump, or by also using conductive adhesive or conductive tape to aid in holding the vinyl onto the metal surface of the dispensing pump.



DISCLOSURE DOCUMENT NO.



518587

RETAINED FOR 2 YEARS

THIS IS NOT A PATENT APPLICATION

PTO-1552 (8/99)

DISCLOSURE DOCUMENT NO. AND DATE

U.S. PAT

## 1) TITLE OF INVENTION

*Interactive Electrostatic Dissipative Gasoline Fueling Warning Signs*

## 2) INVENTOR(S)

NAME

ADDRESS

Michael J. Mann

11961 SW 144 Street Miami, FL 33186

3) DATE IDEA FIRST CONCEIVED: August 15, 2002

## 4) DEVELOPMENT OF INVENTION:

a. Date of First Drawing: August 15, 2002 Drawing No.: N/A

b. Date of First Written Description (other than this disclosure):  
September 14, 2002

c. Has it been Tested? Yes Date: August 15, 2002

d. Is there a Model? No Date: N/A

e. Has this invention been used? No Date: N/A

f. Where or how was it used? N/A -

5) WITNESSES: sign full name - State whether disclosure was made by means of verbal discussion, drawings, model or written descriptions

Name And Address

Date Disclosed

How Disclosed

a. Shirlisa Jane Mann

September 14, 2002

Verbal and Drawings

PATLON INDUSTRIES, INC.

STATIC CONTROL SYSTEMS  
11961 SW 144TH ST.  
MIAMI, FL 33186BANKUNITED  
1111 BRICKELL AVENUE  
MIAMI, FL 33131

63-9059/2670

CHECK NO.

1412

DATE

AMOUNT

09/16/02

\*\*\*\*\*10.00

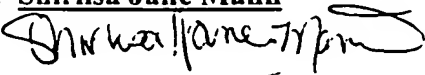

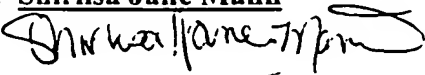

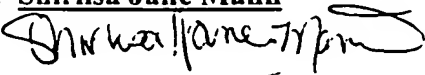

PATLON INDUSTRIES, INC.

AUTHORIZED SIGNATURE

U.S. Patent Office

Washington DC 20231

001412 26 709059410449000 206

<b>DISCLOSURE DOCUMENT NO. AND DATE</b>	<b>U.S. PATENT OFFICE</b>									
<p><b>1) TITLE OF INVENTION</b></p> <p style="text-align: center;"><i><b>Interactive Electrostatic Dissipative Gasoline Fueling Warning Signs</b></i></p>										
<p><b>2) INVENTOR(S)</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; text-align: center; padding-bottom: 10px;"><b>NAME</b></td> <td style="width: 50%; text-align: center; padding-bottom: 10px;"><b>ADDRESS</b></td> </tr> <tr> <td style="padding-bottom: 10px;">Michael J. Mann</td> <td style="padding-bottom: 10px;">11961 SW 144 Street Miami, FL 33186</td> </tr> </table>		<b>NAME</b>	<b>ADDRESS</b>	Michael J. Mann	11961 SW 144 Street Miami, FL 33186					
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<p><b>4) DEVELOPMENT OF INVENTION:</b></p> <p>a. Date of First Drawing: <u>August 15, 2002</u>      Drawing No.: <u>N/A</u></p> <p>b. Date of First Written Description (other than this disclosure):  <u>September 14, 2002</u></p> <p>c. Has it been Tested? <u>Yes</u>      Date: <u>August 15, 2002</u></p> <p>d. Is there a Model? <u>No</u>      Date: <u>N/A</u></p> <p>e. Has this invention been used? <u>No</u>      Date: <u>N/A</u></p> <p>f. Where or how was it used? <u>N/A</u> -</p>										
<p><b>5) WITNESSES:</b> sign full name - State whether disclosure was made by means of verbal discussion, drawings, model or written descriptions</p> <table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left; width: 40%;">Name And Address</th> <th style="text-align: left; width: 30%;">Date Disclosed</th> <th style="text-align: left; width: 30%;">How Disclosed</th> </tr> </thead> <tbody> <tr> <td style="padding-top: 10px;">a. <u>Shirlisa Jane Mann</u>  </td> <td style="padding-top: 10px;"><u>September 14, 2002</u></td> <td style="padding-top: 10px;"><u>Verbal and Drawings</u></td> </tr> <tr> <td style="padding-top: 10px;">b. <u>Eva A. Fernandez</u>  </td> <td style="padding-top: 10px;"><u>September 14, 2002</u></td> <td style="padding-top: 10px;"><u>Verbal and Drawings</u></td> </tr> </tbody> </table>		Name And Address	Date Disclosed	How Disclosed	a. <u>Shirlisa Jane Mann</u> 	<u>September 14, 2002</u>	<u>Verbal and Drawings</u>	b. <u>Eva A. Fernandez</u> 	<u>September 14, 2002</u>	<u>Verbal and Drawings</u>
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b. <u>Eva A. Fernandez</u> 	<u>September 14, 2002</u>	<u>Verbal and Drawings</u>								

6. DRAWINGS:



**7) ABSTRACT (DESCRIPTION OF THE INVENTION)**


A previous disclosure described the invention of an electrostatic dissipative warning sign for fuel dispensing pumps. The present invention is an interactive version of this sign. With the addition of a motion detector, speaker, appropriate circuitry and touch sensing contact, several improved features are added to increase the safety of the refueling process.

The motion detector will detect each time a person approaches the fuel nozzle area.

The speaker along with appropriate circuitry will alert the person in a signal or with verbal alerts to touch the dissipative sign to eliminate their static charge before touching the fuel vapor rich area of the nozzle.

The touch sensor under the dissipative warning sign with the appropriate circuitry may be used to alert the fuel station attendant of an unsafe condition whereby the person does not discharge their static prior to touching or approaching the nozzle area. This feature may also be used by the dispensing system to stop fuel delivery due to an unsafe act by the refueling person.

The preceding drawing shows the invention.

**8) SIGNATURE:** 

The undersigned certifies that to the best of his knowledge, he is the original, first and sole inventor of the above invention.

Inventor

Date

**Michael J. Mann**

**September 14, 2002**